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Automotive Daily News

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Vol. 13. No. 1788 — Entered as second-class matter Aug. 27, 1929, Post Office, N. Y., N. Y., Under Act of March 3, 1879. — NEW YORK, SATURDAY, AUGUST 6, 1932 — 5 Cents. $12 Per Year.

Automobile Financing In June Sets High Mark Since Last September

Total Number of Cars Financed During Month Was Greater Than Any Month Since August Last Year

Washington, Aug. 5.—Automobile financing for June reached a new peak for 1932. Wholesale financing for June was the highest registered in any month since August, 1931. Retail financing totaled more in dollars than it has since September, 1931, while more cars were handled than in any month since August, 1931. These encouraging figures have just been released by the census bureau of the Department of Commerce.

Wholesale financing for the month amounted to $43,661,575 in comparison to $38,608,439 for May $58,171,936 for June of last year. This June total was the heaviest registered since last August, when wholesale financing amounted to $43,942,549.

Retail financing for June totaled $63,145,148, which represented the handling of 177,935 cars, of which 41.69 per cent. were new cars, 55.93 per cent. were used cars and 2.38 per cent. unclassified. This compares with the May total of $58,435,573 and 164,721 cars. In June, 1931, retail financing amounted to $104,642,284, representing the handling of 265,389 cars.

The average price of cars financed in June was $355, the same figure as in May. This marks the maintenance of the lowest average price of years. The average price per car in June of last year was $394.

Both new and used cars are selling lower than they have for many seasons. The average new car sold in June was priced at $517, in contrast to $526 in May and $542 in June of last year. The average used car was priced at $235, as against $242 in May, and $268 in June, 1931.

The financing of new cars amounted to $38,322,657 in June, in comparison to $33,590,555 in May, and $63,554,955 in June, 1930. The 74,168 new cars sold contrasted with 63,885 in May and 115,106 in June of last year. This figure was the highest since August, 1931, when 83,602 cars were sold.

Used car financing during the

(Continued on Page 3)

GRAHAM-PAIGE CUTS ITS PRICES IN CANADA

Toronto, Canada, Aug. 5.—Graham-Paige representatives here have been notified that a new schedule of prices, with reductions on both six and eight-cylinder models up to $150, have been put into effect following the announcement of a cut in prices of Graham cars in the United States.

The price reduction in Canada is announced by Joseph B. Graham, president of Graham-Paige Motors (Canada) Limited, Walkerville, Ont. All eight-cylinder models are cut $150. On the eighty-horse power stream-line six, introduced in June, a reduction of $75 has been made.

The complete range of models, with the new factory list prices and the amount of the reduction, is as follows:

	New Price	Reduction
Graham Eight		
Coupe	$1,400	$150
Coupe (rumble seat)	1,465	150
Convertible coupe	1,565	150
Sedan	1,465	150
Graham Six		
Coupe	$1,170	$75
Coupe (rumble seat)	1,255	75
Convertible coupe	1,475	75
Sedan	1,255	75

COOK COUNTY SEVEN MONTHS SALES 44.9% BEHIND LAST YEAR

Chicago, Aug. 5.—New car registrations in Cook County for the seven months were 44.9 per cent. behind those of the same period last year. Total listings were 25,238 for the period this year and 45,841 for the seven months in 1931.

July registrations showed a gain of 40 cars over June. There was 3,823 listings for last month as against 3,783 for June. Last year in July there were 7,296 registrations.

A review of the figures for July indicates that three of the cars in the lowest class field showed gains over June. Ford had 1,096 compared with 970, the Willys, 109 compared with 55, and Chevrolet listed 752 compared with 638 for the preceding month. Plymouth had 494 in July and 624 in June.

Other makes to show gains for July over June were Auburn, Buick, Chrysler, Graham, Hudson, Lincoln, Reo, Rockne and Willys-Knight. Cadillac had thirty-three for each month.

Ford moved into second place for the seven months totals as a result of its July showing. Ford's total for the seven months was 3,249 against 12,507 for the period last year. Chevrolet led with 6,045, as

(Continued on Page 3)

COMMERCIAL CREDIT EARNS ALL DIVIDENDS IN FIRST 6 MONTHS

Baltimore, Aug. 5.—Consolidated operations of Commercial Credit Company and subsidiaries for the six months ended June 30, 1932, show net income of $1,348,970.96. After payment of all dividends on preferred and preference shares, this was at the annual rate of 79 cents per share on the outstanding common stock. This compares with net income of $2,075,188.24 for the same period of 1931 which was at the annual rate of $2.03 per share on the common stock.

Interest and discount charges were earned 1.91 times as compared with 2.20 times for the same period of 1931. Dividends on the company's 6½ per cent. and 7 per cent. first preferred stocks were earned 3.44 times, and on the Class A $3 convertible stock 2.16 times, as compared with 4.89 times and 3.68 times, respectively, for 1931.

Operating expenses other than interest were at a lower ratio on average money employed than for the corresponding period of 1931, although the average money employed was substantially less.

Lower Output, Higher Sales In August, Detroit Predicts

Ford Schedule Expected to Hold at About 43,000 Units; Hudson Plans 15,000 to 20,000 Terraplanes

By CHRIS SINSABAUGH

Detroit, Aug. 5.—Prospects in the motor vehicle field for August, as Detroit sees them, may be pretty accurately summed up by saying "decreased production, increased sales." What we know of production activities in the first week of August certainly does not hold out much hope that the present month will surpass or even equal July in total vehicle output. On the other hand it would not be surprising of retail run at about the same levels as those of July or possibly even a little better. Retail deliveries continue to run ahead of factory orders.

As far as the present week is concerned, there has been a noticeable let-down. One big manufacturer, who turned out 3,000 units in July, has shut down for a month for "inventory," and undoubtedly other companies will follow suit, although possibly not for so long a period.

As a matter of fact, the industry is in its usual midsummer doldrums. August always brings factory closings, and even the dealers take it easy, preparatory to speeding up in September for the somewhat brisker fall business. This month is certainly not going to be any exception to the rule.

Granting that Ford accounted for a production of something like 43,000 units in July, it is not thought here that he will do much better in August. Other companies in the low-priced field frankly admit that the production count this month will be lower than it was in July. In the other divisions of the vehicle manufacturing industry there is not much activity.

There are many stories going the rounds here to the effect that Ford is preparing for changes in several models and that they will be announced some time in September. It is said that in these models the wheelbase is to be increased eight inches to permit of larger bodies, but dame rumor denies that there will be any revamping of the eight cylinder power plant. Another story

(Continued on Page 2)

SHALER FILES SUIT AGAINST JOBBER FOR PATENT INFRINGEMENT

Madison, Wis., Aug. 5.—Suit has been brought against the C. H. Halperin Company, Madison, Wis., jobber, for distribution of a product called "Prol," which is claimed to infringe on patents held by licensors of the Shaler Company, manufacturers of patch and heat units for tube repairing. The suit was filed on July 8 by Arthur B. Low, John B. Hoppin, Clide V. Hill, John S. Settle, Jr., E. S. Lindas, the licensors.

The Shaler Company was made a part because of the contract which it has with the licensors and because of the allegation that the licensors are having their royalties reduced through infringing competition. The Shaler Company has an exclusive license to manufacture these products under patents held by the licensors.

As yet no word has been received as to the date set for a hearing.

CHEVROLET TITLED 215,811 VEHICLES IN FIRST HALF OF 1932

Detroit, Aug. 5.—Nearly one out of every three new automobiles bought in the first six months of this year was a Chevrolet six, according to registration figures for the period, which are now complete.

Latest state reports show that Chevrolet titled 215,811 new sixes in the period, while the industry as a whole was titling 655,764 new cars, giving the largest division of General Motors 32.9 per cent. of the total.

This compares with 31 per cent. in the same period of 1931; with 24 per cent. in the first half of 1930, and with only 20 per cent. in the boom year of 1929 up to midyear.

Ten years ago, when the company was getting its start in the volume car field, it obtained less than 10 per cent of total business.

During the first half of 1932 Chevrolet sold and titled more cars than the next five other makes of lowest priced cars combined, the returns indicate. Chevrolet's total, comparing the combined registrations of 212,115 units for the other five full years, when Chevrolet built

In its present position, it is the

(Continued on Page 2)

N. S. P. A. ELECTS FIVE NEW MEMBERS

Detroit, Aug. 5.—E. P. Chalfant, executive vice-president of the National Standard Parts Association, Detroit, announces the election of five jobbers to membership in the association.

The names of the newly elected concerns follow: G. & H. Machine Company, Bronx, N. Y.; Iowa Auto Market, Inc., Des Moines, Iowa; National Automotive Equipment Company, Chicago, Ill.; W. W. Leach & Company, Fall River, Mass., and Puritan Parts Corporation, Detroit, Mich.

REGISTRATIONS

Commercial car registrations for June, 1932, complete with the exception of the state of Georgia will be found on Page 6 of this issue. Comparative figures for the month of May, 1932, will be found on Page 7 of this issue. These month-to-month comparative figures are being run in a response to request from a large number of our readers.

Automotive Daily News also today is presenting a compilation of the first passenger car registration returns for July on Page 5. And on Page 8 complete registrations with the exception of Georgia for the first six months of 1932 with comparison for 1931 compiled by states and months will be found.

HUDSON ANNOUNCES TERRAPLANE PRICES ON CANADIAN CARS

Toronto, Canada, Aug. 5.—The following prices have been announced by Hudson-Essex of Canada Limited on the new Essex Terraplane car just introduced to the Canadian public. In addition to the regular factory list prices, to which government taxes are to be added, the following table includes also the price of the new car delivered in Toronto, with freight, license and government taxes paid.

There are five body models in the standard group, and six in the special group. Standard equipment includes bumpers, tire and cover and wheel lock. The following extra equipment is available: Vacuum clutch, at $13 additional, and super power dome at $22 additional. The prices are as follows:

	Factory List	Delivered at Toronto
Standard Models		
Roadster	$595	$740
Business coupe	660	795
Coach	670	795
Coupe (rumble seat)	710	840
Standard sedan	750	875
Chassis	..	615
Special Models		
Special roadster	$695	$850
Special 2-pass. coupe	715	850
Special coach	725	855
Special 4-pass. coupe	765	895
Special sedan	805	940
Convertible sedan	855	1,020

Twelve of the new Canadian-made Essex Terraplane cars were sold and delivered on the first day of their introduction in this city by Hudson-Essex-York, Ltd., according to Andrew Blair, sales manager for the company, who considered this an excellent day's results.

JULY TRUCK SALES FOR COOK COUNTY INCREASE OVER JUNE

Chicago, Aug. 5.—New truck registrations in July for Cook county showed a gain over June with 299 for last month and 166 for the preceding thirty days. Total listings for the seven months showed a marked decrease from last year, there having been 1,956 for 1932, compared with 4,090 for the period of 1931. July listings last year were 645.

Comparative figures for July and June are interesting. They follow:

	July	June
Ford	56	50
Chevrolet	54	39
Diamond T	24	19
International	16	12
GMC	15	12
Autocar	14	11
Dodge	13	9
Mack	7	0
White	7	1
Nelson Le Moon	5	0
Reo	4	0

(Continued on Page 8)

CHEVROLET TITLED 215,811 VEHICLES IN FIRST HALF OF 1932

(Continued from Page 1)

world's largest builder of automobiles, having obtained a higher percentage of total business so far this year than at any time in the past, even during the three of the past five full years, when Chevrolet built and sold more cars than any other manufacturer.

HIGHER SALES IN AUGUST PREDICTED

(Continued from Page 1)

asserts that Ford is to produce a seven passenger model, which would be an innovation for the sage of Dearborn. If this latter story is true, it would account for the rumors of a change in wheelbase.

There have also been stories of wholesale releases of employees from the Ford payroll, but these have been denied. Company officials say that employment continues at within 5,000 or 6,000 of the high point of 1932, which was around 90,000.

Hudson is busy on its new Terraplane and production in July is said to have been around 5,000 units. The company has taken delivery of materials for 10,000 of its latest infant and it is claimed that August schedules call for 15,000 to 20,000 units of this new Essex model.

FORD YPSILANTI PLANT GOES INTO PRODUCTION

Ypsilanti, Mich., Aug. 5.—The Ford Motor Company has started production operations at its new plant in this city. This plant is operated by water power, and when it gets into full production it will employ between 600 and 700 people.

The product which will be turned out in this local plant is starting and lighting equipment for the new V-eight engines.

BOYDEN MANAGER OF BROOKLYN HUDSON CO.

New York, Aug. 5.—The appointment of R. P. Boyden as manager of the Brooklyn Branch of the Hudson Motor Car Company of New York, Inc., located at 1422 Bedford Ave., was announced by Mr. R. B. Cole, vice-president and general manager. Before coming to Brooklyn, Mr. Boyden was manager of the Jamaica store. His service with the company started in 1916 as assistant manager of the New York service station where he worked under J. F. Gfrorer, service manager in New York, for a period of eight years. Mr. Boyden supersedes Mr. A. B. Crane, who has been transferred to New York to take care of the main showroom on Broadway.

REVERE COPPER

New York, Aug. 5.—Revere Copper and Brass reports for six months ended June 30 net loss of $815,214 after interest, depreciation, etc., comparing with net loss of $144,058 in the first half of 1931.

FINANCIAL NEWS

S. O. OF CALIFORNIA

New York, Aug. 5.—Standard Oil Company of California reports for the quarter ended June 30 last a net profit of $3,986,302 after depreciation, depletion, amortization, etc., equal to 30 cents a share on 13,102,900 shares of no-par stock. This compares with $2,930,241, or 22 cents a share in the preceding quarter and $1,275,358, or 10 cents a share in the June quarter of the previous year.

For the six months ended June 30 last net profit was $6,916,544 after charges, inventory revaluation, etc., equal to 53 cents a share as compared with $5,643,968, or 43 cents a share in the first half of 1931.

LEAD

New York, Aug. 5.—Lead buying continues in fair volume, but is less active than last week. The price is unchanged at 2.95 cents a pound New York and 2.85 cents St. Louis. Sales of lead at fixed price on contract last week came to somewhat over 11,000 tons, the largest for any week this year.

July sales of lead amounted to a little over 31,000 tons and were the largest of the year, being 2,000 tons greater than for January which was the previous best month of the year. Shipments of lead for delivery in July will probably be close to 26,000 tons. In June, shipments of lead to consumption were 21,000 tons, the lowest of the year.

ALUMINUM INDUSTRIES

Cincinnati, Aug. 5.—Aluminum Industries, Inc., directors have taken no action on the dividend due at this time on the no par common stock. The last previous payment of 12½ cents a share was made on June 15.

AMERICAN STEEL FOUNDRIES

New York, Aug. 5.—American Steel Foundries reports for six months to June 30, net loss of $636,873 after depreciation, taxes and minority interest. This compares with net profit of $140,079, equal to $2.21 a share on the 63,350 shares of 7 per cent. preferred stock in the first half of 1931. Net loss for the quarter to June 30 was $286,573 after taxes and charges, comparing with net loss of $350,300 in the preceding quarter, and net profit of $73,684, equal to $1.16 a share on the preferred stock in the June quarter of the previous year.

SUPERIOR STEEL

New York, Aug. 5.—Superior Steel reports for six months to June 30 net loss of $275,772 after depreciation, interest, taxes, etc., comparing with net loss of $241,037 in the first half of 1931. For June quarter net loss was $125,128 after above charges, against net loss of $150,644 in the preceding quarter, and net loss of $96,609 in the June quarter of the previous year.

TRUSCON STEEL

New York, Aug. 5.—Truscon Steel reports for six months to June 30 net loss of $533,040 after depreciation, taxes, etc., comparing with net loss of $280,586 in the first half of 1931. For June quarter net loss was $173,736 after charges and taxes against net loss of $359,304 in the preceding quarter and net profit of $61,403, equal to $1.74 a share on 35,156 shares of 7 per cent. preferred stock in the June quarter of 1931.

SPARKS from DETROIT

Junking

* * *

Colin Campbell

* * *

Al Weeks

* * *

Butler to Butler

* * *

Chris Sinsabaugh—Detroit Editor

ALTHOUGH not much has been heard of the junker plan of late, the factory dealer co-operation scheme to remove the old cars from the highways is still working, I am told, notwithstanding the dealers' junk funds at the various plants are reported at low ebb.

No definite information is as yet available as to the number of cars junked for the first half of 1932, but those who are in contact with this end of the industry claim there will be more motor vehicles scrapped in this way this year than in any previous twelve-month period.

* * *

THIS IS EXPLAINED by the fact that the amount of money set up through dealers' new-car purchases now permits the junking of more cars because of the reduced value allowable on the cars to be junked. Heretofore, the conductor understands, the dealers' allowance in some cases was $40. It is now about $24, my informant tells me. This means that a dealer with a fund of $600 at the factory was able, at the rate of $40 per car, to get approval to junk fifteen old cars. Now this $600 fund will mean approval on twenty-five.

The reduction in the junking allowance also ended the scheme of some dealers buying used cars at low prices and presenting them to the factory representatives for approval and getting $40 allowances.

* * *

WHILE THE LATE COLIN CAMPBELL cannot be regarded as a pioneer in the automobile industry, yet there is no disputing the fact that he was a veteran. Fifteen years in this business entitles him to this recognition.

Campbell came to us from the railroad world. As a boy of 14 he started as mechanic's helper in the West Albany shops of the New York Central, and when he decided to cut loose and tie up with the automobile industry he was assistant superintendent of the West Shore Division of the N. Y. C. He was assistant to W. C. Sills when the latter was Chevrolet sales manager during the Durant regime in General Motors. When Durant stepped out, Sills followed and became a Durant distributor in Boston. With the change of control in General Motors, Campbell got his big chance—he became Chevrolet sales manager at a time when its production was 77,000. When he stepped out in '24 to follow his old chief, Durant, it had reached 480,000. R. H. Grant succeeded him as Chevrolet sales manager.

Mr. Campbell's last connection in the industry was as vice-president of Willys-Overland.

* * *

AL WEEKS, newspaperman par excellence, got a job with Advertisers Incorporated a couple of years ago. Plymouth produced its movie at the time the new line came out and Weeks did the announcing in it. He proved he had the ideal voice for that sort of a job, so when Chrysler put on the Ziegfeld radio program, Weeks got his big chance—he knocked 'em cold with his announcing.

He'd climbed into his niche, so its no wonder he has gone with the Metropolitan Motion Picture Company at Detroit, producers of industrial sound motion pictures, headed by M. J. Caplan, and given complete charge of its creative directing and narrating activities in connection with future pictures produced.

* * *

COMMENTING on recent promotional literature that has come to the desk, there is a giant reproduction of a testimonial letter written by Smedley D. Butler, who sings the praises of his Pierce-Arrow, which he has driven 21,000 miles.

It is an unusual letter and written to Lee D. Butler, Pierce-Arrow distributor in Washington, D. C. Because of the similarity of surnames you might think the general was giving one of his family a big boost, but Bill Baldwin, P. A.'s director of advertising and sales development, gets around this by footnoting: "Lee D. Butler is unrelated to the writer of this letter. Gen. Butler's letter is a voluntary tribute."

Automotive Daily News

AUGUST 27th

REVIEW
and
Reference Number

Distribution advertisers will get at no extra charge:

Practically every dealer and distributor of vehicles in the United States.

10,000 independent repair shops.

3,000 engineers, production men and other factory officials.

1,500 jobbers of accessories, parts, shop equipment.

16,000 commercial fleet owners, truck dealers and bus operators.

Total distribution, including regular circulation, over 80,000.

•

No other single publication provides such wide coverage. No other publication offers visibility of ALL advertisements regardless of size. No other paper offers so many readers, per copy, such high reader interest.

Here's part of what it will contain:

Complete sales records of the industry for six years.

Financial review of the leading companies in all branches of the industry.

Survey of dealer activities and condition in key sections all over the country.

How the service division of the industry has met the problems of 1932.

Great leaders of the industry tell their plans for 1933.

Survey of the jobber field in 1932.

Well known sales managers tell what they believe dealers must do in the coming months.

Review of the engineering development that signalized 1932. What the engineers are going to give us in 1933.

Complete mechanical records of the cars of the past six years.

Complete passenger car registrations for the first seven months of 1932.

Complete commercial vehicle registrations for the first seven months of 1932.

Association activities and future plans.

Dealer stocks as of August 1.

List of company executives and titles.

AND

Latest news of the day, as always—while it's still news.

Automotive Daily News

Classified Advertising

Classified Rates 5c Per Word

PROMINENT Middle States truck manufacturer with an excellent reputation for up-to-date design with competitive prices offers an exceptional opportunity for a sales director who has pep and ability, and who would be given an opportunity to receive more than ordinary salary, providing he is able to take some part financially. Address Automotive Daily News, Box 302, 350 Hudson Street, New York City.

SALES ENGINEER wants Detroit connection. Have had twenty years' experience with automobile and parts companies. Have been successful factory representative and distributor of automobile accessories. Have wide acquaintance and good standing in the industry. Technical graduate, good habits, member S. A. E. Box 428, 427 Fisher Bldg., Detroit, Mich.

Retail Salesmen—This Is Your Page

This department is devoted to the interests of the retail sales division of the industry. Salesmen, this is your department. Automotive Daily News wants you to get something from this department that will help you in your work on the firing line. It wants you to pass on your own experiences, successes, failures to help your brother salesmen. Send in your story in the form of a letter, or even a postal card, and let us get it ready for publication. Your achievement or your mistake may help another salesman to make sales or avoid errors that cost you commissions.

Dealers read this page. Give us the benefit of your reactions on these problems that affect the work of your salesmen, the men on the firing line, the men who bring home the bacon or don't.

TACT AND DETERMINATION MADE THIS SALE

The successful salesman has got to mix determination with tact if he is going to overcome the obstacles that he is sure to encounter in making some of his sales. The following letter was submitted in the recent Pierce-Arrow salesman's contest and appeared in the company's house organ. It certainly is a good example of what sticking to a job and doing it tactfully can bring the salesman who is up against a tough case:

By LOUIS W. SHROYER,
Baltimore, Md.

On March 19, 1931, I was given a prospect by a friend of mine. The prospect was Mr. S., chairman of the board of a leading bank.

During April and May of 1931, after many calls with little success, I was advised that if, and when they bought, it would be another Blank. However, my records will show that I constantly called on him until the 1st of August at which time he went away, returning to Baltimore about October.

During the fall and winter, I called on him every month and the best I could get was that when interested he would let me know. On January 29, at the time of our automobile show, I was advised by his son to leave his father alone as they would decide when they wanted to buy a new car.

In early spring, I took one of our new cars out to Mr. S's house, and Mr. Sentz, our sales manager, accompanied me. Mr. and Mrs. S. finally came out. They didn't even stop to look at the new Pierce-Arrow, which was parked directly back of their Blank.

I kept calling on Mr. S. at his bank and about two months ago I had my first satisfactory interview. After a pleasant "good morning," which gave me encouragement to continue my calling, and after many calls, I was finally able to tell him something of the comfort and safety, etc., of the new Pierce-Arrow car. Gradually he became more interested in what I had to say.

Then another hurdle presented itself. His son, who had been accustomed to buying his father's cars, met me at his father's office. This son has purchased many Blanks for has father and was extremely partial to them and to make sure that his next purchase would be another Blank he finally told me to stay out of his father's office and not to annoy him any further about Pierce-Arrow cars. I asked him if he had anything against Pierce-Arrow or me and with a very uncomfortable blush he admitted that he had nothing against us, but made it very plain that his choice was Blank. At the son's suggestion, I left the bank, but stayed on the outside until I saw the son leave and then I immediately went back to see Mr. S., who I thought was warming up just a little to me. I was determined then to sell the car to the father in spite of the son and whenever possible, I avoided the son from then on.

After a few more calls on the prospect, he was persuaded to come into our showroom to see the new Pierce-Arrow and he kept the appointment. He inspected the car thoroughly in every detail. He was particular about the upholstery, the comfort of the seats, the width of the rear seat, and he liked the graceful exterior and its fine interior. The fact that my prospect kept his appointment with me and came into our showroom, convinced me that I had made some progress and that I had finally interested him in Pierce - Arrow. Then we arranged to show the car to Mrs. S., who, I am glad to say, was pleased.

Now, then, the son stepped in again and immediately arranged the showing of two Blanks at their home. About this time another salesman sold the car that Mr. S. was interested in. Then arose the difficulty of getting a duplicate car upholstered just like the car which we had shown. The Blank Company had two cars, either of which, of course, could be delivered immediately. Mr. Barnhart, our zone manager, suggested that we try the factory to get the special upholstery. This Mr. Aberdeen arranged to do and I went back to my prospect and obtained his order for a Pierce-Arrow model 54 inclosed drive limousine, with six demountable wood wheels, with trunk and suitcase complete. I took in trade the 1929 Blank limousine.

WILL MERGE DEPARTMENTS

Lincoln, Neb., Aug. 5.—The DuTeau Chevrolet Company, now located at 1801 O St., has signed a short term lease for use of the two-story building covering more than a quarter of a block at 1800 O St. and soon to be vacated by the Rogers Motor Company, Ford dealer. With occupation of the new quarters, the DuTeau company will be able to house all its activities in one building, the shop heretofore having been operated in a separate building from the rest of the business.

DEALERS HEAR NIELSEN

New London, Conn., Aug. 5.—Arthur A. Nielsen of Hartford, president of the Connecticut Automobile Dealers' Association, was the principal speaker at a meeting of New London car dealers recently. Mr. Nielsen urged the group to unite more strongly and to fight for service business, which is being lost to back-alley mechanics. He also stressed the fact that the dealers should use consistent newspaper advertising to increase their volume.

COOK COUNTY SEVEN MONTHS SALES 44.9% BEHIND LAST YEAR

(Continued from Page 1)

against 9,708 last year. Plymouth, in third place, listed 2,758 against 689 for the period in 1931. Buick was fourth, with 1,472; Pontiac fifth, with 1,275, and Oldsmobile and Studebaker had 1,001 and 1,000 respectively for sixth and seventh places.

Aside from Plymouth, two other makes showed gains for the year over 1931—De Soto, with 819, and Willys, with 676. Last year for the period De Soto had 819 and the Willys 6 and 8 registered 594.

Computing the groups Chrysler had a gain for the period, the four units listing 5,234, against 4,576 last year. General Motors units had a combined total of 10,357, as against 17,558 in 1931.

Following are the registrations for the seven months of 1932, compared wth the same period last year:

	1932	1931
Chevrolet	6,045	9,708
Ford	3,249	12,507
Plymouth	2,758	689
Buick	1,472	2,558
Pontiac	1,275	2,300
Oldsmobile	1,001	2,043
Studebaker	1,000	1,478
Chrysler	971	1,503
Nash	909	1,373
De Soto	819	556
Dodge	636	1,828
Willys 6 and 8	676	594
Auburn	635	1,983
Packard	501	824
Graham	445	466
Essex	445	962
Hupmobile	437	713
Cadillac	361	550
Hudson	245	441
Rockne	240	0
La Salle	203	399
Pierce-Arrow	144	207
Lincoln	138	240
Willys-Knight	115	202
Reo	110	183
Franklin	69	119
De Vaux	48	89
Marmon	45	187
Cord	18	147
Durant	7	71
Miscellaneous	171	821

JUNE AUTOMOBILE FINANCING HIGHEST SINCE SEPT., 1931

(Continued from Page 1)

month amounted to $23,257,953, only a slight increase over the $23,257,953 registered in May, but in contrast to $37,988,162 in June, 1931. Used cars financed during the month totaled 99,524, as against 96,010 in May, and 141,935 in June of last year. Used car financing was higher in dollars than in June than it has been since October of last year, when a total of $25,882,006 was attained. More used cars were sold in June than since last September, when 103,234 cars were sold.

CAMPAIGNING FOR PROSPERITY

In the launching of the mammoth "Independent Prosperity Campaign," inaugurated by more than 7,500 retail drug stores, confectionaries and restaurants in the Greater Chicago area, an important part is being played by Plymouth Motor Corporation, Detroit.

Through the co-operation of the Detroit motor manufacturer, the presentation of a Plymouth car every day to a patron of one of the stores affiliated with the "Independent Prosperity Campaign" is made possible.

This gigantic prosperity campaign, which is one of the largest concerted business improvement drives in Chicago history, was conceived by the Ice Cream Institute, consisting of the following companies: Borden Co., Chappel Co., Cities Co., J. F. Cunningham Co., Goldenrod Co., Hydrox Corporation, Lawrence Co., Thompson Co. and Wieland Co., all manufacturers of leading brands of ice cream.

Through the more than 7,500 retail stores merchandising the products of Ice Cream Institute, the "Independent Prosperity Campaign" will be carried on during the next few weeks.

Cities in which members of the institute have stores include, in addition to metropolitan and suburban Chicago, Gary, Hammond, Joliet, Aurora, Elgin and Waukegan.

During the prosperity campaign, each of the 7,500 drug stores, confectionaries and restaurants participating are easily identified by banners and streamers inside and outside their stores and by special exploitation in and around their business localities.

HANDLING THE PROSPECT WHO TALKS DEPRESSION

One of the set obstacles that all salesmen today have to overcome is depression arguments. You can't bump into three people anywhere without having two of them talking depression. Offer to sell them something, and two and three-quarters out of three will offer depression as the reason that they cannot buy. In the current issue of the Pontiac Chieftain there is an excellent article on how salesmen can meet this depression talk, both from the point of view of his own psychology and that of an excuse offered by a prospect for not buying.

The story runs as follows:

In the good old days of 1927-1929 when people bought the stock of the Seaboard Airline railroad "because they thougnt the aviation industry was due for a boom," canned sales talks were popular—and surprisingly effective.

Sales managers said to their salesmen: "Give this talk to every prospect and the law of averages will take care of you." But times, as you many have noticed have changed. Today the prospects are the fellows who present the canned sales talks. They're "selling" the depression and are doing a very fair job. They all use about the same arguments. They have their "floor day" at the office every day of the week and also they bear down on the "cold approach." They explain to any and sundry, especially to those who try to sell them something, that the country is headed straight spang for the deminition bow-wows. They make a really fine and enthusiastic effort to explain what a dangerous move it would be for them or anyone else to dare buy a suit of clothes or a pound of candy or a car—what with times as they are right now and all. They sigh for the good old days (excluding of course, such days as we had in 1837, 1855, 1873, 1893, 1903, 1907 and 1921).

The average intelligent salesman can and should handle these depression arguments vigorously. They lack logic and leak like a sieve.

Maybe these good people haven't heard that there are more than twenty-nine billions of dollars in American savings banks, or more than $1,000 for every family in the land. At least they don't seem to mention the fact. It doesn't fit well with their depression arguments. And, while no other country in the world has so large a percentage of stock and bondholders, this twenty-nine billions in savings is not in the form of securities—it is in good old American cash. That total would pay off our entire national debt and leave quite a bit of change—about ten billion dollars.

The national income is estimated for this year at $60,000,000,000, or more than one billion dollars per week. In 1926 a good sound year, it was about $77,000,000,000. Now, with the 1932 dollar worth about $1.50 in buying power, the national income in 1932 based on the 1926 dollar is in reality about $90,000,000,000—not a bad income at all. And now about money in circulation. In 1929 there was $4,864,000,000 in circulation, but at present the figure has risen to $5,464,000,000.

All this money belongs to the people with whom Pontiac salesmen talk every day—the same people who are offering this depression talk. If they really thought our nation was going to pieces they would move elsewhere. With their pre-depression dollar going about one and one-half times as far as it did three years ago, they still argue that they should buy only the cheapest cars, if any. Maybe they don't know or don't care that a very small additional expenditure which they can well afford would bring them all the advantages of Pontiac ownership. That's something for these owners of savings bank accounts and these holders of jobs to be told and retold.

You will encounter the same depression tales over and over again. For instance, the one from the man who cries on your shoulder and says he couldn't think of buying a new car because he has received a 15 per cent. salary cut. That's one of the star arguments of the canned depression talk.

But it can be answered—with no come-back.

"Listen, we've gone right along with you. The whole world, including the Pontiac Motor Company, has cut prices to match your income. Granted your income has declined. So has the price of automobiles, while the cost of living is down about 30 per cent. Everything is relative. Right now you're better off and better able to buy a car than you were before the depression. O. K., sign the order and let me take this old buck board off your hands so you can enjoy the driving pleasure to which you are financially entitled.

The canned depression arguments are legion—but there's an answer to every one of them. You'll find some good ammunition in Pontiac's "Yese, But" folder. Get one and read it carefully.

Handling depression arguments is a hard assignment. No doubt of that. It will take hard-hitting, long-hour work to accomplish that job. But the depression talkers are weakening and the salesmen are becoming keener and more effective in their efforts. Keep it up. Discount these depression arguments. Let them roll off your back like water off the proverbial duck's back. Don't let these arguments stop you. You don't have to let them stop you because you have all the answers.

Then step out and give these depression talkers something that will make them feel cheerful—sell them a new Pontiac.

JAMES DALTON NAMED NEW EDITOR OF "MOTOR"

New York, Aug. 5.—James Dalton formerly industrial editor of Motor, has been appointed editor, succeeding Ray Sherman, whose resignation was announced in Automotive Daily News some days ago.

Neal Adair, managing editor and Harold Blanchard, technical editor, will continue in their respective capacities.

FOREIGN TRADE OPPORTUNITIES

Washington, D. C., Aug. 5.—Foreign automotive trade opportunities just announced by the automotive division of the Bureau of Foreign and Domestic Commerce of the Department of Commerce are listed below.

Additional information may be obtained from the bureau and its district and co-operative offices by duly registered firms or individuals upon written request, giving the opportunity number.

487—Jerusalem, Palestine; agency and purchase of automobile accessories and parts.

452—Winnipeg, Canada; agency for automobile jacks.

409—Lisbon, Portugal; agency for automobile parts, such as bolts, bushings and valves.

410—Tokio, Japan; agency for automobile replacement parts and accessories.

453—Bombay, India; agency and purchase of automobile and truck parts and accessories.

445—Paris, France; agency for garage equipment.

Automotive Daily News

"Of, By and For the Entire Automotive Industry"

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SATURDAY, AUGUST 6, 1932

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A Comparison

IN 1931 the automotive industry found itself in what might slangily be termed "a hot spot." For the first time since the business of building self-propelled vehicles for use on the highways emerged from its swaddling clothes, our industry had watched production and sales sink ominously for two years in succession. It had become a tradition in the automotive industry that the business proceeded in cycles of three years, low, higher, top, then low, higher and the top of the cycle again. This tradition was rudely broken in 1931.

The industry started 1931 with high hopes. It did not expect to break the abnormal record established in 1929 when 5,621,715 vehicle units were turned out, but it did expect to better the "normal" 3,500,000 of 1930. Instead, the 1931 production total sank more than 1,000,000 units to 2,472,359 vehicles. That the tradition of the industry of the three-year cycle was about to go by the board, was evident early in the year. Every manufacturer knew that 1931 was going to be "not so good."

Yet the reaction of the automotive industry to the discouraging slump of 1931 was the one possible constructive move. Instead of shutting down on efforts to improve matters, the manufacturers sailed in with the most elaborate campaigns to better their products that any industry ever had undertaken. No time, labor or expense was spared.

The results of this courageous effort to fight depression were found in the 1932 automobile shows. The new lines of cars there exhibited showed the greatest development and improvement that ever had been seen at an exhibition of the sort. Even back in the days when motor vehicles were still crude machines with improvements fairly crying to be made, no showing of new models ever had carried such far reaching evidences of expensive development work. The cars for 1932 as they appeared at the automobile shows offered value for the dollar far beyond anything that had gone before.

Surely this is the constructive attitude for any industry to take. When circumstances slow down sales, improve the product until the appeal is sufficient to bring out the most reluctant dollar.

During the past few years the railways have been going through a difficult period, perhaps their plight has been just as serious as that of the automotive industry. The railways are the backbone of our transportation system. Their contribution to the finances of the country is enormous. No one wants to see the railways crippled. In fact all of us would benefit indirectly if the railed carriers were prosperous and distributing plenty of money in wages, purchases and through other channels.

For some reason or other the first thought that seemed to come to the railways when business fell off was not the constructive one of improving their service. They seemed to feel that the quickest way to bring prosperity back to their lines was to kill competition from motor vehicles, which has invaded certain fields formerly belonging wholly to the railed carriers. The railways have endeavored to have laws passed that would rule truck and bus transportation out of their field where competition now exists. We vastly doubt that tearing down competition is going to solve the railways' problem. On the other hand we do not believe that the railways have even yet reached the full measure of their potential service to the country.

Instead of spending time trying to eliminate truck and bus competition, which incidentally is here to stay, the railways might try the experiment of improving their service. They might bend their efforts to increasing the speeds that they can use with safety, thereby opening up great new areas to suburban development around all our cities. They might experiment with the use of lighter forms of carrying units, motor driven locomotives for instance, to make profitable operation of branch lines possible. They might try co-ordinating truck and bus service with their rail lines, thereby utilizing competition instead of trying to throttle it.

They might, in short, try following the example of the automotive industry in constructive solution of their problem instead of attempting the destructive alternative of killing competition.

On the Other Hand

Buffalo, N. Y., Aug. 5.—Industrial conditions throughout western New York and northwestern Pennsylvania have improved materially during the past thirty days. A large number of industries of various types of manufacture have either stepped up production schedules or resumed operations after having been closed down for many weeks. The textile industry has recorded the widest improvement. Local mills, which have been operating on curtailed schedules for several months, have taken on day and night shifts and expect to maintain capacity output well into the fall months. The metal trades have also been revived, although not on as great a scale as was the case with the textile industry.

Metal working plants engaged in the manufacture of material and equipment for the automotive industry and the building trades show a decided upward trend in production and volume of incoming business. To be sure the improvement is gradual, but most factors look for further impetus in most all lines from now until the end of the current year.

Although the woodworking and wood furniture industry in this area is still lagging as to new orders, the volume of inquiries has taken a sharp upward turn and indications point to factory production schedules of near normal during the coming fall and winter months.

In Jamestown the plant of the Crescent Tool Company, manufacturer of pliers, wrenches and electricians' tools, resumed operations this month on a normal five-day working week, after having been practically dormant for several months. Company officials report an improving volume of business, especially from the Pacific Coast and New England states and expects to keep its entire plant here, employing upwards of 200 men fully employed throughout the coming months.

The huge plant of the General Electric Company in Erie, Pa., is expected to add materially to its pay roll and working schedules following receipts of a large order for refrigeration equipment from the Federal Government. Other Erie firms are contemplating resumption of more normal working schedules within the next few weeks.

Several manufacturing concerns in Warren, Titusville, Oil City and Franklin, Pa., have recorded an increasing volume of new business and retailers in these districts are more hopeful of the future. Improvement in the oil industry will reflect most favorably on business of concerns in this district.

Automoile dealers in this bi-state area are more confident of business during the coming months and the profound feeling of pessimism so prevalent in all quarters is rapidly disappearing.

P. R. R. LOADINGS GAIN

Philadelphia, Aug. 5.—Total cars handled by Pennsylvania Railroad system for week ended July 30 were 77,209, against 76,689 week before, and comparing with 118,859 in like period last year. Decrease from 1931 week was 35 per cent., compared with a drop of 34 per cent. shown by the preceding week from a year previous.

From January 1 cars totaled 2,618,370, against 3,599,093 in corresponding period of 1931, a decrease of 27.2 per cent.

DUNLOP MILLS BUSY

Olyphant, Pa., Aug. 5.—Because of increasing activity in the silk and rayon industry, the John Dunlop's Sons, Inc., mill in Olyphant, Pa., is running at capacity, employing the full quota of 350 people, and the mill in Olean, N. Y., will start operations at 75 per cent. capacity on Monday, with 250 people. Production at Olyphant increased 40 per cent. in the past three weeks.

CURB SALES BEST SINCE APRIL

Stock sales totaled 330,000 shares on the New York Curb Exchange, highest total since April 18, last, when the total was 420,270.

BLAST FURNACE REOPENS

Youngstown, Aug. 5.—Republic Steel Corporation probably will resume operations next week at the Trumbull stack at Warren, O., the corporation's largest blast furnace, recalling 200 employees. Cold and metal stocks have been depleted at Republic's nearby openhearth steel plant.

16.1 PER CENT OF BLAST FURNACES ACTIVE

As of August 1, there were forty-six blast furnaces active in the United States, of a total of 285 available, or 16.1 per cent., the same number as of July 1.

ARMY ORDERS ELECTRIC RANGES

Chicago, Aug. 5.—The quartermaster's department of the army has awarded a contract for 1,000 GE-Hotpoint electric ranges to Edison General Electric Appliance Company.

PENN. R. R. ORDERS STEEL

Philadelphia, Aug. 5.—Pennsylvania Railroad has released orders placed some time ago for 6,050 tons of steel to be used in construction of the New Market Street Station at Newark, N. J., together with track viaduct, platforms and train shed. Orders were placed with McClintic-Marshall Corp., the Shoemaker Bridge Company and Fort Pitt Bridge Company. The steel will be delivered in about two months.

UPTURN IN CHICAGO

Chicago, Aug. 5.—Fifteen hundred retailers and wholesalers in the Chicago area were reported today as asserting that business was on an upturn, and that prosperity was certain to be established on an upward climb by fall.

The sentiment was established in a survey conducted by the Chicago Association of Credit Men, covering the large packing companies, steel concerns, drug companies, department stores and scores of manufacturers.

"Many of the firms interviewed," said J. F. O'Keefe, executive secretary of the association, pointed out that merchandising stocks on retailers' shelves now are at the lowest point in history; that collections are improving, and that huge supplies of merchandise must be manufactured and sold to care for fall and winter buying.

GETS $700,000 ORDER

Salem, Ore., Aug. 5.—The Mullins Manufacturing Corporation today announced the receipt of release on orders amounting to approximately $700,000 for products in their automobile, washing machine, tub and refrigeration divisions. More than fifty men were added.

TO REOPEN ON AUGUST 15

Dover, N. J.—Aug. 5.—The management of the Richardson & Boynton stove plant said today that the plant would reopen on August 15, employing 200 men.

TO GIVE JOBS TO 400.

Lynchburg, Va., Aug. 5.—The Consolidated Textile Mill increased employment this week so as to give jobs to between three and four hundred persons, it was said today.

EXPANDING PLANT

Kenvil, N. J., Aug. 5.—The Hercules Powder Company announced plans today for the installation of new boilers and additional power housing facilities at its Kenvil, explosive plant. The work will begin at once.

HOLLEY CARBURETOR CO. APPOINTS G. E. PLATZER

Detroit, Aug. 5.—G. E. Platzer was recently appointed sales manager of Holley Carburetor Company, Detroit. His previous position was in charge of dynamometer sales for General Electric Company, Schenectady, N. Y.

ILLINOIS ADDS 659 MILES OF HIGHWAYS

Chicago, Aug. 5.—Figures just released on Illinois state highway construction show that for the year ended July 20 a total of 473 miles were paved and 186 miles of gravel or macadam roads completed. For this year alone, from January 1 to July 20, a total of 659 miles were added to the state highways. In the week ended July 20 a total of 8,225 men were employed in road construction work.

BUS COMPANY HELD LIABLE IN VIOLATION OF PASSING STATUTE

Hartford, Conn., Aug. 5.—The Superior Court of Error today held that a bus company was liable as negligent in certain cases, even though the dimensions of the bus made literal compliance with the law impossible.

It held that a bus driver who fails to keep the bus "to the right of the intersection of the centers" of the two intersecting streets in making a left turn, as required by a Connecticut statute, is negligent, although the size of the bus makes a literal compliance with the statute physically impossible and the driver in making the turn keeps as near to the right of the center as possible. The bus company is liable for damages caused by the violation of the statute notwithstanding the impossibility of compliance therewith.

LACEY IS HONORED BY PEXTO COMPANY

Southington, Conn., Aug. 5.—Mark J. Lacey, vice-president and sales director of the Peck, Stow & Wilcox Company, tool manufacturers, was elected a director at the annual stockholders' meeting. He succeeds Albert L. Sessions, who resigned because of ill health.

Officers were elected as follows: President, George S. Case; vice-president and treasurer, Charles F. Treadway; secretary and comptroller, Arthur G. Potter; vice-president and general manager, Mark J. Lacey; vice-presidents, Frank L. Wilcox and Otto J. Blank.

MALCO COMPANY ELECTS

Bridgeport, Conn., Aug. 5.—The Malco Manufacturing Company, new automotive parts manufacturing concern, which recently started operations in the former plant of the Locomobile Company of America, has elected Howard Martin of Fairfield as president; I. J. Cohn, Bridgeport, secretary; D. A. Berg, Bridgeport, treasurer, and E. W. Allen, Bridgeport, assistant treasurer. Directors are officers.

NEW AUTOMOTIVE SERVICE

Lincoln, Neb., Aug. 5.—A new automotive service establishment, to be known as the Auto Hospital, is being opened at 1700 O St. this week by H. G. Buchanon and Paul Taylor. The services of the firm include complete brake service; wheel, axle and frame straightening; body, fender and radiator repairing; top and upholstery work and automobile painting. A new dust-proof paint room is part of the equipment.

COMING EVENTS

AUGUST

22-26—**Denver, Col.** American Chemical Society Convention.
30-Sept. 1—**Cleveland.** S. A. E. Aircraft meeting.

SEPTEMBER

12-17—**Cleveland.** Machine Shop Practice Meeting, A. S. M. E.
15-17—**Atlantic City, N. J.** American Trade Association Executives Annual Meeting.
19-26—**Harrisburg, Pa.** Pennsylvania Automotive Association Convention.
22-23—**Chicago.** National Association Motor Bus Operators.
22-23—**Chicago.** American Electric Railway Association Meeting.
30-Oct. 1—**Dallas, Tex.** American Institute Mining and Metallurgical Engineers, Petroleum Division.

OCTOBER

3—**Buffalo, N. Y.** Society of Automotive Engineers Production Meeting.
3- 7—**Buffalo, N. Y.** National Metal Congress. Sponsored by American Society for Steel Treating, with co-operation of American Society of Mechanical Engineers, Institute of Metals and Iron and Steel Divisions of American Institute of Mining and Metallurgical Engineers, American Welding Society, Wire Association.
3- 7—**Washington, D. C.** National Safety Council Meeting.
3- 7—**Buffalo, N. Y.** National Metal Exposition, 174th Regiment Armory. W. H. Eisenman, 7016 Euclid Ave., Cleveland, director.
4- 6—**Toronto.** Transportation Meeting, S. A. E.
10-14—**Atlantic City, N. J.** American Gas Association.
11-19—**Glasgow, Scotland.** Motor Show.
13-22—**London, England.** Olympia Show.
17-22—**Atlantic City, N. J.** National Hardware Association. Accessories Branch.

NOVEMBER

14-16—**Atlanta, Ga.** National Tire Dealers' Association.
18-Dec. 4—**Paris.** Aeronautical Show.

DECEMBER

2- 3—**Detroit.** National Standard Parts Association Convention.
5- 9—**New York.** Annual Meeting A. S. M. E.
5-10—**New York.** Power and Mechanical Engineering Exposition.
5-10—**Detroit.** Third Annual Joint Trade Show, National Standard Parts Association and Motor and Equipment Manufacturers' Association, Convention Hall.

Production - - Engineering - - Factory

FUELIZER SURVEY

By JOHN G. MacCORMACK
Vice-President Godward Gas Generator, Inc.

As the subject of vaporization, pre-vaporization or atomization is a very large order, I will confine myself to the high lights and, if possible, point to some of the fundamental equipment underlying the use of fuel that is less volatile than gasoline when used in low-compression engines.

Sixty-one years ago an engine was built in Exeter, Mass., by Brayton. The engine was patented at least a year before Hock built his engine in Vienna. Brayton's engine, a single-acting two-cycle, was supplied with air and fuel by separate pumps. The fuel and air were not admitted cold, but as an atomized mixture which, going through mized mixture which, going through a small orifice, passed a constant flame. This might be referred to as progressive ignition, resulting in constant pressure.

The Brayton was possibly four years ahead of the English Priestman engine, and was, in fact, the first safe and practical oil engine. Thus we had, some 60 years ago, pressure on air and fuel by separate pumps, intense atomization and open flame for vaporization and ignition.

The Hock engine of 60 years ago, also a two-cycle, used pump pressure on the air. As each stroke forced air through a fuel container, the vapor produced was passed through a nozzle against a permanent flame. This appears to have taken place in a chamber of vaporizer attached to the side of the cylinder. Just past top center the suction opened a flap valve and drew the lighted vapor into the cylinder. This seems possible, as the exhaust port appears to have been near the top of the stroke. As the flap valve opened, an air-nozzle that allowed air at atmospheric pressure to enter was also uncovered. Summing up the Hock engine, we had an outside vaporizer, air under pressure to the vaporizer and an ignited rich mixture with supplementary air.

We can now advance to 1892, or 40 years ago, and note the following in The Engineer, as a classification of methods of using oil up to that time:

1. Engines in which the oil, before entering the cylinder, is converted first into an oil spray, forming an oil shower, and next into vapor in a hot chamber.

2. Engines in which the liquid oil is injected into a prolongation of the engine cylinder, and a hot cartridge chamber or combustion space, where it is converted into vapor or gas.

3. Engines in which the oil is converted into vapor or gas in a chamber attached to the cylinder and communicating with it b.' a valve.

4. Engines in which the oil is converted into vapor or gas in a separate chamber, heated apart from the cylinder.

Now, here we have, forty-odd years ago, vaporizing chambers as part of a cylinder casting, and vaporizers removed from the engine; we have the fuel finely atomized and sprayed into a hot chamber, and we have fuel sprayed into a hot spot as part of the engine, and pressure put on fuel or air or on both, to break up the charge.

We move up to a report as of 1900 by Prof. Meyer of Germany, classifying oil engines up to thirty-two years ago:

1. Engines in which the oil and air are mixed before admission to the cylinder and then vaporized. These engines have an oil nozzle or pump, and exhaust and intake valves.

2. Engines in which the oil and air are mixed in the cylinder itself after vaporization. These engines have a spray nozzle and air blast with or without a pump and exhaust and inlet valves.

(Continued on Page 6)

NEW MONROE SHOCK ABSORBER

A new shock absorber, designed for cars weighing up to 3,000 pounds, has just been announced by the Monroe Auto Equipment Company. Designated as the Monroe hydraulic shock eliminator, this new device employs the principle of absorbing the energy of the car springs in excess of that necessary to return the springs smoothly to their normal position.

The resistance of the eliminators is controlled by the piston forcing oil through a pressure relief valve and the regulating orifice. The pressure relief valve automatically insures control for varied road conditions, and an outside adjustment feature permits the car owner easily to obtain any range of riding quality desired.

This device is claimed to solve another problem associated with hydraulic shock absorbers, that of compensating for temperature changes. The oil used is made up in accordance with a special formula, and is of such low viscosity that it will retain its fluid characteristics in temperatures as low as —40 degrees F. Thermostatic control is accomplished by use of a patented alloy piston which has a thermal expansion three times as great as the cast iron body. This construction accommodates itself automatically to oil viscosity changes induced by variations in temperature.

STAINLESS STEEL POLISHING MACHINE

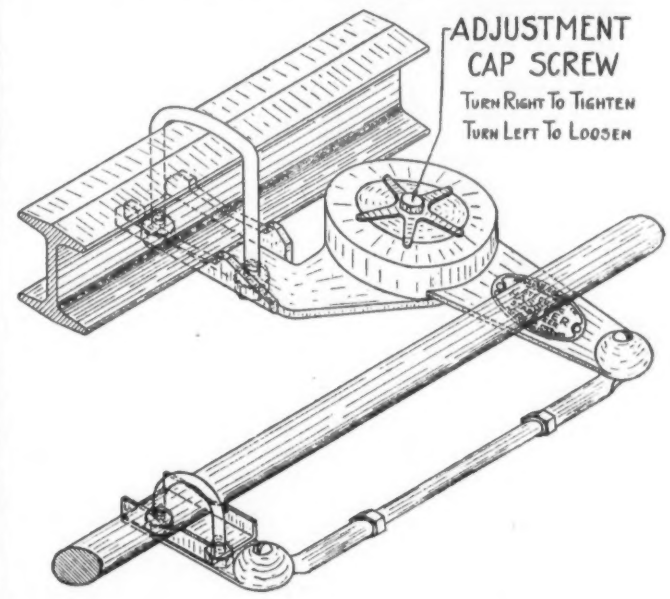
The Excelsior Tool & Machine Company has developed a new stainless steel polishing machine, designed to take the steel sheets up to sixty inches wide and give them a commercial finish in one operation.

The machines may be had with any by a ten horse power, dustproof, ball The sheets of stainless steel are laid on the end of an endless belt conveyor, which carries them under the roughing and finishing belts at constant speed. The sheets are completely polished even to the edges. A holding down device is provided to prevent the sheets from shifting.

The polishing belts are seven inches wide by eight feet long and are of endless construction. Each belt operates over two end pulleys, the inside ones being driven direct by a ten horsepower, dustproof, ball bearing motors. An intermediate idler pulley is placed between each set of end pulleys to keep the polishing belt in touch with the steel. The idler pulleys are self-adjusting and give a uniform pressure on the entire working face of the polishing belt. This pressure is regulated by means of weights.

The polishing belts can be removed when dull and a replacement be put on in a minute or two without interfering with the operation of the other belts. A tightening device is provided to maintain the proper belt tension. The conveyor has a speed ratio of two to one.

Hassler Steering Stablizer



The Hassler Service Company is announcing a new steering stabilizer, which fits all makes of cars and does away with the need for carrying a large number of different models in stock.

The principal elements of this stabilizer consist of a conical wooden disk, which has been impregnated with a special compound, and a steel cup. As long as these parts are kept lubricated, the wear, it is claimed, is so slight that the unit is good for the life of the car.

The fundamental principle in this stabilizer is described as being that of the two-way shock absorber. It is installed on the tie-rod at the point of greatest radius to provide positive two-way lubricated control of the tire-rod movement and does not increase the poundage of turning. The unit is attached firmly at one end to the chassis and at the other to the tie-rod, the two-way action serving as a complete dampener of vibration. The lubrication required is given about twice a year with an Alemite gun.

Cumulative New Passenger Car Registration Statistics, July, 1932

Returns for today: Delaware, North Dakota, South Carolina

States	AUBURN GROUP			CHRYSLER GROUP					FORD GROUP			GENERAL MOTORS GROUP						
	Auburn	Cord	Totals	Chrysler	De Soto	Dodge	Plymouth	Totals	Ford	Lincoln	Totals	Buick	Cadillac	Chevrolet	La Salle	Oldsmobile	Pontiac	Totals
Delaware	1		1	3	2	1	26	32	79		79	6	2	81		2	9	100
Illinois	201		201	175	169	136	831	1311	2433	23	2456	222	38	1682	23	109	216	2290
N. Dakota				4		8	41	53	192		192	8		154		5	8	175
South Carolina	5		5	3	8	8	30	49	323		323	8		209		4	15	236
Line Total	207			185	179	153	928		3027	23		244	40	2126	23	120	248	
Group Total			207					1445			3050							2801
Delaware, 1931	1		1	23	6	3	27	59	118	3	121	29	5	151	4	8	39	236
Illinois, 1931	315	10	325	439	301	417	733	1890	3718	30	3748	570	94	3929	81	362	781	5817
N. Dakota, 1931	3		3	11	2	10	57	80	165	2	167	11		218		6	35	270
So. Carolina, 1931	12		12	32	16	35	79	162	609		609	30	1	666	2	11	54	764
Line Total, 1931	331	10		505	325	465	896		4610	35		640	100	4964	87	387	909	
Group Total, '31			341					2191			4645							7087

States	HUDSON GROUP			STUDEBAKER GROUP				WILLYS-OV'R'D GR'P			NON-AFFILIATED MANUFACTURERS									State Total
	Essex	Hudson	Totals	Pierce-Arrow	Rockne	Studebaker	Totals	Willys-Overland	Willys-Knight	Totals	De Vaux	Franklin	Graham	Hupmobile	Marmon	Nash	Packard	Reo	Miscellaneous	
Delaware	2	1	3	1	4	3	8	4	1	1			1	1		10				240
Illinois	77	43	120	19	120	113	252	165	15	180	6	8	66	50	2	108	62	22	20	7,154
N. Dakota	3		3		6		6	16	2	18			2			5	1			455
South Carolina	5	3	8		5	2	7	1		1			2	5		1	2	1		640
Line Total	87	47		20	135	118		186	18		6	8	71	56	2	124	65	23	20	8,489
Group Total			134				273			204										
Delaware, 1931	8	5	13			9	9	7	1	8						10	5		10	472
Illinois, 1931	213	93	306	24		331	355	266	31	297	69	13	160	157	21	379	180	20	137	13874
N. Dakota, 1931	7	3	10			15	15	17	1	18	6		5	3	1	12		5	3	598
So. Carolina, 1931	26	14	40			9	9	10	2	12	9		8	10		12	8	1	1	1,657
Line Total, 1931	254	115		24	*	364		300	35		84	13	173	170	22	413	193	26	151	16,601
Group Total, '31			369				388			335										

*Not in production.

FUELIZER SURVEY

(Continued from Page 5)

In this classification we can see cold atomization of fuel by air under pressure, with the combustion chamber finishing the job, and we can see intensive vaporization by applied heat and flame in vaporizers apart from the engine, with various means of getting the charge cooled and into the engine.

A thirty-year-old report of the Capitain engine illustrates the knowledge existing then of the job we are trying to do today. "Where only a small quantity of heated air, sufficient to vaporize but not to charge is first admitted to mix with the oil, the balance of the air being admitted afterward, the first mixture having been ignited." Again quoting, "Mere pulverization of the charge is not, however, sufficient; it must be vaporized as well."

We have this: That a hot, rich mixture, atomized before being vaporized, should have the balance of the air added for efficient combustion. This, by the way, was put forword by Ricardo about fifteen years later.

In his report Meyer points out that the compression pressure must be reduced to avoid detonation; that the vaporizer must not become too hot and that exhaust-heat regulation is necessary.

In Class 2 of the Meyer report, where most of the air does not come in contact with the hot vaporizer, he states: "The vaporizer (and the fuel) can be at high heat, but the vaporizer must be guarded against carbon deposits. This can be prevented by holding the heavier hydrocarbons in suspension, as the oil must be broken up and completely burned before there is time for the heavy ends to decompose."

In effect, he is suggesting that the mixture be kept moving. His reference to time and the coking of heavy ends is a warning not to permit the heavy ends to deposit. I have lately seen a device, just patented, in which the rich mixture, after leaving the carburetor, travels probably twenty-five inches under heat in a six-inch vaporizer before it goes to the combustion chamber. I would call it a twenty-five-inch time element. The idea is very good if high heat is maintained and satisfactory means are developed for cooling the mixture before the charge enters the engine.

We also find that fuel injection, both cold and hot, was tried over thirty years ago, one engine having injection of fuel by air, with additional air following before the inlet closed, the injection being close to the ports.

A good many of these methods sound very similar to present-day practice. Approximately forty-six years ago Westinghouse brought out its gas engine, the success of which probably caused the rush of engines which came about that time. Many of these started as gas engines and were changed to oil engines because of the low cost of oil fuel—the Nash; the Sintz; the Foos, which heated the air to vaporize the fuel; the Webster, a four-cycle, but which used the crankcase as an air chamber, to feed, and a Bunsen burner, to heat, the vaporizer. A few years ago I thought the marine people were quite clever to have thought of scavenging the crankcase through the carburetor, but it seems as if the trick was done over forty years ago in this Webster engine.

The Case threshing machine engine sent the oil through a needle valve and bypassed the surplus oil. The Pacific vaporized the oil by hot-air blast. The Wolverine, which did or did not use heavy fuel (authorities differ on this) did have a "reversing gear that does not seem to present the difficulties as is experienced in Europe." I took that from an English report which appears to be documentary evidence that a boat reverse-gear does work and that the first one was made here.

Other American engines were the Metz and Weiss and the Otto. I have a report of a 1902 test of an Otto in which exhaust gas was utilized to lessen detonation. This is from just one more of the many authorities who have advocated the injection of cold air or exhaust gas at some point of the expansion stroke as a means of slowing up combustion and lessening detonation. In this period of up to fifteen years ago, American engines seemed to have incorporated all the known methods of fuelizing, outside vaporizers, air heating, fuel and air under pressure, exhaust heat, exhaust-heat control, scavenging the crankcase of oil vapor and feeding it back into the engine, bypassing of surplus fuel and cold fuel atomized by hot air under pressure through an exhaust stove.

Fourteen years ago Leon Cammen presented a paper before the American Society of Mechanical Engineers, and about the same time Maurice Seaton reported the results of kerosene tests. Seaton found with an experimental vaporizer that, at low vaporized heats, he could not idle below 800 r. p. m., but that, at exceptionally high temperatures of the ingoing gases (about 375 deg. F.) the engine would idle at 150 r. p. m. and that he could stop and start the engine at will with the hot vaporizer. If he heated all of the air in the presence of kerosene, he did an exceptional piece of work in producing a constant mixture temperature of 375 deg. However, he probably tried various methods, as in his conclusion he states: "The intake gas should be heated to a temperature considerably higher above the boling point of the kerosene, higher compression pressure should be used, and the exhaust gases controlled for load."

He undoubtedly cooled the gas before it entered the engine, but note particularly what he has to say about the heating of the fuel to these high temperatures, of above the boiling point.

Leon Cammen's paper states that "kerosene will vaporize if heated to about 225 degree Fahrenheit." Possibly what he means is that kerosene mixed with twelve parts of air under reduced manifold pressure will vaporize at 225 degrees. Then he states, "But on the other hand, if kerosene is finely atomized and heated to a very much higher temperature, a particularly vicious knock is the result of this breaking up of the fuel, and the problem is therefore to bring the kerosene-air mixture up to approximately 225 degrees without exceeding it."

He tried preheating the fuel and air at 300 degrees, but condensation occurred even at that temperature. We assume from his remarks that if condensation takes place before the mixture enters the engine, dilution will result. He directs our attention to the War Department findings that dilution is directly related to engine temperature. This is of importance to boat-engine people, who are investigating the possible use of heavy fuels, as they appear to me to advocate relatively cold engines. Cammen goes on to say, "Dilution need not be excessive if water temperatures are kept beyond 200 degrees." He goes further and suggests oil cooling for oil-fuel engines, so that he can have cooling temperatures in excess of 225 degrees.

These two engineers offer two methods, one to treat the fuel above its boiling point and cool it down and the other to heat the mixture to 225 degrees. Both methods have much to recommend them, but I think the governing factor in a choice would be the fuel you plan to use.

Cammen calls our attention of Sir Dugal Clerk's design for admission of exhaust gas near the bottom of the intake stroke to form a cool layer under the charge and lessen detonation. He takes issue with Ricardo, who advocates a dilutant added to the charge at the start of the intake stroke, as he believes mixing with the charge reduces efficiency.

In 1927 we have another high light on this : :bject in the work at Purdue University by C. S. Kegerreis, O. A. Huebotter and M. J. Zucrow. They found that the mixture temperatures should be from 200 to 220 degrees Fahrenheit, with water temperature at 150 degrees, being in agreement with Seaton as to mixture temperatures. In these tests

(Continued on Page 8)

Cumulative New Commercial Car Registration Statistics, June, 1932

Figures in this table are from R. L. Polk & Co. of Detroit, with the exception of Illinois, which are supplied by the Robinson Advertising Service, Springfield, Ill., and New Jersey, which are furnished by the New Jersey Motor List Co., New Car Division, Trenton, N. J. Metropolitan district figures compiled by Sherlock & Arnold are included in New York state total. Readers desiring county, city or town lists, or lists of owners in any given section, may obtain these by addressing any of these three companies. Some of th's data has been published previously, but it is given here complete for the convenience of our subscribers.

In this table, 47 states and the District of Columbia. **Commercial car figures do not include busses.**

States	Autocar	Brockway	Chevrolet	Dia-mond-T	Dodge	Federal	Ford	G. M. C.	Indiana	Inter national	La France Republic	Mack	Pierce-Arrow	Reo	Sterling	Stewart	Studebaker	White	Willys-Overland	Miscel-laneous	Totals	States
Alabama			67		3		33	7		9							1			2	122	Alabama
Arizona			15		2		29	1		5							3				55	Arizona
Arkansas			30				29	1		4				1							65	Arkansas
California	2		309	3	63	9	614	34	8	48		5		34	3	4	28	4	2	85	1255	California
Colorado			46		8		73	2		9		1		3			2		1		145	Colorado
Connecticut	3	2	106	2	18	1	121	15	1	21	1	3	2	8		1	6	3	1	5	320	Connecticut
Delaware			35		3		24	4	1	5				2			2			2	78	Delaware
Florida			58		3		97	1	1	11				1			2	3	1	11	189	Florida
Idaho			17		3		24	1		2								1		1	49	Idaho
Illinois	10		174	29	25	2	167	15	1	64				9	1		12	4	3	11	527	Illinois
Indiana	1		141	8	21	2	96	20	6	54				9		1	7		3	7	376	Indiana
Iowa			157	6	15		166	10	2	49				7			6	1		4	423	Iowa
Kansas			130	5	12		144	11		40				2	1		3		8	3	359	Kansas
Kentucky			92	4	9	10	110	8	4	33		1		6			25		2	1	305	Kentucky
Louisiana			62	3	2		78	7	1	16				2			1	1			173	Louisiana
Maine	1		114	1	24		134	6	1	7		5		8	3		7		1	1	313	Maine
Maryland	16	6	119	3	32	3	117	19	3	37	2	11		10		3	3	2	1	6	393	Maryland
Mass'setts	11	3	178	7	43	4	357	46	5	53		11		29	2	9	6	9	2	9	784	Mass'setts
Michigan			178		35	12	434	12	1	32	1	1		14			7	5	2	6	740	Michigan
Minnesota			176	14	21	5	220	6	2	57	1			6			8	2	5	3	526	Minnesota
Mississippi			39				41	6		14											100	Mississippi
Missouri	2		217	8	20	4	251	20	3	74		7		5			3	5	1	9	629	Missouri
Montana			8		1		22			16							1		1		49	Montana
Nebraska			49	4	4	1	65	10		26		1		2					4	1	167	Nebraska
Nevada			9				16	2		2										2	31	Nevada, 31
New H'pshire		1	31	3		1	56	5						2			1		1	3	104	New H'pshire
New Jersey	11	8	244	13	45	6	253	45	4	75		16		19	1	3	6	11	3	22	785	New Jersey
N. Mexico			19		1		39			8							1				68	N. Mexico
New York	14	55	563	35	128	13	718	78	9	184		47	2	30	5	37	16	21	9	31	1995	New York
North Car.			124	1	9		127	9		10		2		3						1	286	North Car.
North Dakota			30	2	3		35			23										1	94	Nort'i Dak.
Ohio	3		218	8	47	4	375	43	21	80		16		18		4	15	21	10	91	974	Ohio
Oklahoma			89		5		77	4		15										6	196	Oklahoma
Oregon			51		13	3	121	12	3	17	1			3	6		4	2			236	Oregon
Pennsylvania	18	20	446	15	146	4	615	61	15	134		28		34	4	23	20	20	19	36	1658	Pennsyl. '31
Rhode Island	2		37		5	8	59	18		7				8						3	147	Rhode Island
So. Carolina			40	2	1		42	2		5		1					2			1	96	S. Carolina
South Dakota			25		6		11			18		1								1	62	S'th Dakota
Tennessee			47		4	2	56	6		9		2		1			3				130	Tennessee
Texas			315	3	9	1	342	6	4	66				5			7	1		6	755	Texas
Utah			19		2		18	5		7				2			1				54	Utah
Vermont	2		30	2	8		62	3	2	20		1		6		1	2		6		145	Vermont
Virginia	2		147	2	8		143	8	4	29	1	1		2				3	1		351	Virginia
Washington			52	1	9	2	80	1		23		1		6			5	2		8	190	Washington
W. Virginia			55		12		72	2	4	17				2			1		1	4	170	W. Virginia
Wisconsin			273	27	37	6	261	18	4	58				14		1	8	1	10	14	732	Wisconsin
Wyoming			11		4		16	1	4	5							1				42	Wyoming
Dist. of Col.	1		38	4	9		41	2		14		3						1		2	115	Dist. of Col.
Total	99	95	5430	215	878	103	7081	593	114	1512	7	165	4	313	26	87	226	123	98	399	17568	Totals

ALL STEEL FORGING PRESSES

The Cleveland Punch & Shear Company are offering high speed all steel presses, designed for the sizing of forgings. There are six models available ranging in capacity from 200 to 2,000 tons pressure.

The accompanying picture shows a press with a capacity of 1,800 tons pressure. The machine has a speed of thirty-five strokes a minute. The length of the stroke is twelve inches.

All drive shaft and intermediate shaft bearings are of the roller type. The crankshaft frame bearings are 17½ inches in diameter and the crankpins 30½ inches. The bed and ram measure sixty inches from front to rear and the height of the die space shut is twenty-nine inches.

These presses are provided with a hand lever for inching the head when setting dies. A foot treadle is employed for starting or stopping the slide at any point of its stroke. When the press is used intermittently a positive automatic stop brings the head to rest at the top of each stroke. A safety device is provided which is set at a predetermined tonnage to guard against danger in case the press should be overloaded.

The slide is gibbed at both top and bottom to give accuracy even at the very end of the stroke. A wedge adjustment is included for the bolster and this member is adjustable in any direction for aligning the dies. Automatic equipment may be had for carrying either hot or cold material to the dies.

In the automotive industry presses of this type find service in sizing front axles, differential ring gears, brake drums, wheel flanges, differential housings and similar parts.

YOUNG RADIATOR CO. DIVISION BUSY

Racine, Wis., Aug. 5.—The Young Radiator Company, through its president, announces the receipt of a large contract for oil temperature regulators for immediate delivery. This company announces that they are also working on the production of units for car heaters, the largest order they have ever received for this commodity, which will bring a steady production through the department manufacturing them for the next six months without interruption.

A constant production is also being maintained in a department especially designed for the production of air-conditioning copper heat transfer components, a new field which this company has entered and achieved considerable success in by actual production and delivery of its products to the field. This is in addition to the regular products of this company, already established as one of the largest manufacturers of industrial type engine cooling radiators for power units, trucks and tractors, unit heaters with fans and motors for space heating and Young Streamaire copper connection heaters, with cabinets and inclosures for homes, buildings and room heating.

GABRIEL NAMES BEECHER NEW CHIEF ENGINEER

Cleveland, Aug. 5.—John J. Batterman, president of the Gabriel Company, announces the appointment of Eugene L. Beecher as chief engineer of the Gabriel Company. Formerly an experimental engineer with the Westinghouse Electric Manufacturing Company, he assisted in the development of the Westinghouse air spring and air brake.

As research engineer with Gabriel he has been closely associated with the development of the company's hycraulic shock absorbers, and the later development of the automatic-thermostatic Gabriel hydraulic shock absorbers.

B. O. P. DEALERS AND SALESMEN HOLD MEETING

Cleveland, Aug. 5.—New sales methods were described and demonstrated at a meeting here Wednesday of more than 450 dealers and salesmen handling Buick, Oldsmobile and Pontiac cars in eastern Ohio. Courtney Johnson, assistant general sales manager of the Buick-Olds-Pontiac Sales Company of Detroit, one of the chief speakers following a luncheon meeting at Hotel Statler, said good business would develop quickly if we could have a return of sane, normal buying habits.

Mr. Johnson pointed out that inventories are abnormally low, values are at their peak, and savings deposits are high. More than 43,000,000 persons are gainfully employed, he pointed out, and savings accounts total more than ever before. If these millions of workers and owners of bank accounts resumed normal buying, factories throughout the country would be kept busy. W. R. Huber, sales promotion manager, also spoke. A playlet and talking picture demonstrated to the group approved sales methods. Arrangements were under the direction of W. L. Pavlovski, Cleveland zone manager.

A. J. HAYES

Montreal, Aug. 5.—A. J. Hayes, 55, general manager of the Champion Spark Plug Company, Ltd., of Windsor, Ont., died suddenly in hospital in Ottawa last Saturday. Mr. Hayes was in Ottawa in connection with the Imperial Economic Conference.

B. L. MAAS JOINS ACME MACHINE PRODUCTS

Muncie, Aug. 5.—B. L. Maas, formerly secretary and sales manager of the Federal Screw Works, Detroit, has become associated with the Acme Machine Products Company of Muncie with offices at 731 Fisher Building, Detroit. The Acme Machine Products Company have been in business for twenty years, and are the manufacturers of high carbon upset head cap screws. Besides this product they are in a position to furnish semi-finished nuts, special automatic screw machine parts, and a complete line of screw machine products. Mr. Maas will have complete supervision of sales of this company.

RUARK ON TRIP

Chicago, Aug. 5.—B. W. Ruark, general manager of the Motor and Equipment Wholesalers Association, is on a trip, during which he is visiting automotive jobbers on the Pacific Coast, it was announced at association headquarters here today. He is expected to return to Chicago about August 17. The M. E. W. A. is now completely organized east of the Rockies, with affiliated regional groups in every section. The next step in the association's program will be to extent the organization beyond the Rockies, giving it a national scope.

CLASSIFIED ADVERTISEMENTS IN THE AUTOMOTIVE DAILY NEWS BRING RESULTS

Cumulative New Commercial Car Registration Statistics, May, 1932

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Commercial car figures do not include busses.

In this table, 47 states and the District of Columbia.

States	Autocar	Brockway	Chevrolet	Diamond-T	Dodge	Federal	Ford	G. M. C.	Indiana	International	La France Republic	Mack	Pierce-Arrow	Reo	Sterling	Stewart	Studebaker	White	Willys-Overland	Miscellaneous	Totals	States
Alabama			76		8	2	44	7		11		1		3			2	1			155	Alabama
Arizona			33		2		21	1		3							1				61	Arizona
Arkansas			41		4		38	2		8							2	1			96	Arkansas
California	6	1	272	1	74	6	487	37	2	47	4	10	1	32		3	36	6	1	67	1093	California
Colorado			58		7		66	2		18				3			7	3	1	2	167	Colorado
Connecticut	3		135		29	4	143	12	2	30	2	10	2	18		1	3	4	2	13	413	Conn.
Delaware	2		24		1		31	5	1	10		1		2		2	3		2		84	Delaware
Florida			61		2	1	88	3		14		1						1	1	19	191	Florida
Idaho			32		2		39	2		7									1	2	85	Idaho
Illinois			243	46	46	7	244	25	2	107		1	1	10			17		6	23	778	Illinois
Indiana			133	5	18	1	116	15	8	67				6			10		1	7	337	Indiana
Iowa			198	6	20		146	9	1	62		2		14			9		8	4	479	Iowa
Kansas			120	3	10	1	87	8	1	25	1			2			5		1	5	269	Kansas
Kentucky			72	3	8	9	42	5	1	11				3			2		5	1	162	Kentucky
Louisiana			61	1	5		58	7		26				1						1	160	Louisiana
Maine	2		160	4	25		212	13		25				3			6		2		452	Maine
Maryland	9	6	115	1	12	2	105	21	3	49		8		5			8	13	1		358	Maryland
Mas'achusetts	21	7	219	11	41	5	517	60	5	39		12		33	4	8	7	6	1	6	1002	Mass.
Michigan	1		207	2	45	9	382	22		56	1	2		9			17	2	2	6	763	Michigan
Minnesota			250	14	47	10	232	16		68		3		12		1	11	3	4	4	675	Minnesota
Mississippi			45		6		54	3		7								1			116	Mississippi
Missouri			245	17	25	4	233	19	2	57	2	2	1	10			6			18	641	Missouri
Montana			32		5	1	37	4		17		1					2		2		101	Montana
Nebraska			66	2	9	1	73	7		32		1		5			5	2	2		205	Nebraska
Nevada			13		3		11	5		4									1		37	Nevada
New Hamp.		2	55	6	9		100	9		10	1			1		1	1		2	1	198	New Hamp.
New Jersey	5	11	305	22	38	10	286	37	6	60		7	2	24	1	6	4	8	4	27	863	New Jersey
New Mexico			15		1	1	26	1		10							1				55	N. Mexico
New York	15	41	617	50	141	13	906	81	8	236		79	7	57	5	56	20	34	17	63	2446	New York
North Car.			120	1	11		120	9		14		2		1			2	4		7	291	North Car.
North Dakota			27		5		32			25	1						2		2	2	96	North Dak.
Ohio	5		203	4	63	7	312	23	9	110		1		22	1	6	18	10	8	57	859	Ohio
Oklahoma			80		9	5	97	8	3	16		1					3			2	224	Oklahoma
Oregon			38		5		62	6	2	10		1		3			5	1	1	3	137	Oregon
Pennsylvania	12	6	501	14	127	17	506	41	3	132		17	3	34	4	35	37	21	21	20	1551	Penna.
Rhode Island			30	3	7	7	69	7		7				8				1		1	140	Rho. Island
S. Carolina			41		7		27	1		3								1		2	82	S. Carolina
S. Dakota			30	2	8		18	1		10				1			2	1			73	S. Dakota
Tennessee			65	2	11	3	60	3		18		3		2			2	1	1	5	176	Tennessee
Texas			329	1	25	2	287	14	2	79		10		6			4	5		18	782	Texas
Utah			31		3		34	3		8				1				1		1	82	Utah
Vermont			49	1	13	2	82		1	23				3		4			7		185	Vermont
Virginia			180	1	2	3	132	11	5	24	3	3		7				4	1	3	393	Virginia
Washington			60	8	8	1	95	7	1	40		2		4			5	2		12	245	Wash'ton
West Virginia			47	1	12	1	63	4	2	16		2		5			3	1	5	1	163	West Va.
Wisconsin			116	13	22	2	108	11	3	27				5	1		8		3	14	333	Wisconsin
Wyoming			13	1	5		15	1		5										3	43	Wyoming
Dist. of Col.			46	3	5	4	35	14		3								3		1	114	Dist. of Col.
Totals	81	74	5909	249	1010	141	6978	602	73	1686	15	183	17	355	16	123	276	141	116	421	18466	Totals

FUELIZER SURVEY

(Continued from Page 6)

undoubtedly all the air used was passed through the carburetor.

In the last few years considerable work has been done that is of value to heavy oil vaporization. Professor Degler of the University of Illinois states in one of his papers, "The fuel may be completely vaporized at a high temperature with a small amount of heat and it may be accomplished very rapidly; the dry fuel vapor may then be mixed with cool air and drawn into the cylinder before it has time to condense. The final mixture may thus be usably dry at the lowest possible temperature." He appears to think, as Cammen and Ricardo do, that the fuel should be treated with high heat in the presence of a small volume of air, that the mixture should be kept at high velocity while being treated, and then cooled down before the charge enters the engine. The following is Ricardo's opinion on how to treat heavy oil:

Now, if paraffin be heated to a temperature of 600 degrees Fahrenheit, some of the lighter fractions will be "cracked," that is to say, they will be split up into carbon and hydrogen, the former being deposited in the vaporizer, which would very soon become choked. It is evident, therefore, that it is not possible merely to boil the paraffin and treat the vapor as a fixed gas, as can be done with petrol. If, however, the fuel be heated in a vaporizer, through which air is passing, at a temperature of about 500 degrees Fahrenheit, "cracking" will be prevented, and nearly the whole of the fuel will be vaporized; but, if the temperature falls much below 500 degrees Fahrenheit, only partial vaporization will occur, and, if much above, it is liable to crack. Now, if the whole of the fuel and the air supplied to the engine were raised to a temperature of 500 degrees Fahrenheit before entering the cylinder, it is obvious that the volumetric efficiency would be reduced to little more than half of that which would be obtained with a normal charge. Also, owing to the high suction temperature, only an exceedingly low compression ratio could be employed, for the temperature would very soon reach a point at which severe detonation and pre-ignition would occur.

From the above considerations, it is evident that it is not practically possible merely to vaporize the fuel and then treat it as a fixed gas. The other alternative is to pulverize the oil to a very fine degree, generally by passing air through it at an extremely high velocity, and, as far as possible, to maintain it in this finely atomized condition until it is ignited. Unfortunately, the finely divided particles of fuel can be kept in suspension only so long as the air is traveling at an exceedingly high velocity. So soon as this velocity falls, as, for instance, after passing the inlet valve and entering the cylinder, the particles immediately show a tendency to coalesce and precipitate on the walls of the cylinder, or upon any portion of the induction pipe where a change of velocity or direction occurs. Any fuel that is so precipitated escapes combustion, because it cannot be surrounded with the necessary supply of air. A small portion of the fuel so precipitated will burn slowly, from the surface, leaving a heavy carbon deposit, but the greater proportion will pass through the engine completely unburned.

The work of fuelizers is at present represented, I believe, by four schools of opinion, and while I am roughly classifying all fuelizers into four groups, not unlike the grouping of 30 years ago, I have done so only that the classification would suit the fuels I believe they are capable of treating.

1. Those who believe that satisfactory vaporization can be obtained with standard carburetion, an exhaust-heated vaporizer and design sufficient to hold the fuel in suspension for sufficient time for heat to do the work.

This type should give satisfaction with gasoline, kerosene, No. 1 heater oil or alcohol.

2. Those who believe that intense atomization is enough, discarding standard carburetion to employ metering devices and injecting a more thoroughly atomized fuel into the airstream of some point in the induction system. The combustion chamber is expected to do some of the work. The fuels they may be restricted to are gasoline, kerosene and No. 1 heater oil.

3. Those who believe in vaporizing the fuel in the presence of a small volume of air at a high temperature and cooling the hot, rich vapor before it enters the engine.

They should be able to use gasoline, kerosene, gas oil and alcohol.

4. Those who believe in igniting a part of the fuel charge, utilizing the heat of the burned gases to vaporize the balance of the mixture.

This group can use kerosene, heater oil and gas oil.

I have avoided discussing fuels, as it is a subject of which I know nothing, the inference being that I know something of fuelizers, which is quite wrong; but having had occasion to seek for information on how a fuelizer would work if sold in Chile, China or Turkey I wrote abroad for samples of oil or distillation data. The best of many replies gave the specific gravity; the majority agreed that their fuels were petrol, kerosene and crude oil; and the most intelligent told me that the Standard Oil Company could sell him a dark-brownish oil, having a greenish, oily film, showing that something was mixed with it, and that it could be bought for so much a ton. Under the circumstances, my lack of knowledge may be excused.

If you plan to buy fuelizers for domestic use, you can readily decide the limits of fuel it may be called upon to treat.

If you plan to build for domestic use, this does not hold good, as no one can build without considering export sales. So, if you plan to build or sell for export, the job must be prepared to care for the most difficult fuel that can be generally obtained.

I would do all my testing with a 28-32 gas oil of not less than 725 degrees end-point; the initial would be not less than 450 degrees and the first 50 per cent. would not be under 525 degrees. I would have that fuel made up if necessary and measure the device by its ability to treat such a fuel for fifty hours with not more than 1 per cent. dilution.

If the fuel is treated properly there will be no smoke under load and if the vaporizer, atomizer or fuelizer is a first-class job, it will not begin to smoke other than after long idling periods, and, if it is really good, it will take the throttle wide open after the long idling without hesitation.

Starting—In the boat field starting must be done, I believe, without the aid of gasoline. This need not be so in many forms of industrial application. Several devices are on the market, I believe, that are said to start from cold on heavy oil. I am not expressing my opinion on the subject. I would, however, have my boat engine equipped so that gasoline could be used if the fuel oil should turn sour.

In the choice of a vaporizing system, I believe that a good deal is to be learned from the history of what has gone before, as certain factors of success in vaporization seem to stand out over a period of many years and are today embodied in part, at least, in quite a few devices which can readily be adapted to your use if you know what you need for your particular service.

JULY TRUCK SALES FOR COOK COUNTY INCREASE OVER JUNE

(Continued from Page 1)

Divco	2	0
Federal	2	0
Sterling	2	0
Available	1	0
Case Tractor	1	0
Chicago	1	0
Indiana	1	0
Pierce-Arrow	1	0
Schacht	1	0
Studebaker	1	3
Super	1	0
Reo	21	29
Available	20	47
Sterling	19	22
Studebaker	18	19
Willys	7	14
Relay	5	5
Republic	4	3
Hendrickson	3	20
Super	3	0
Indiana	3	31
Stewart	2	19
Rieland & Bree.	2	12
Ward	2	0
Plymouth	2	0
Chicago	2	21
Willys-Knight	1	2
Thorne	1	0
Twin Coach	1	0
Aherns-Fox	1	0
Master	1	1
Miscellaneous	0	86

For the seven months Chevrolet leads, having 504, with Ford totaling 490. Last year for the period Chevrolet had 819 and Ford 1,967. International was third, with 232, and Diamond T fourth, with 160.

GMC, in fifth place, had comparative figures of 139, against 83. Divco has a gain of 16 trucks for the period, White 4 trucks and Autocar 5.

Following are the new truck registrations for seven months this year in Cook county compared with the same period of 1931:

	1932	1931
Chevrolet	504	819
Ford	490	1,967
International	232	324
Diamond T	160	183
G. M. C.	139	83
Dodge	103	160
Mack	40	46
Autocar	32	27
White	31	27
Federal	27	32
Nelson Le Moon.	27	53
Divco	26	10
Walker	24	28

LAMONT TO BECOME STEEL INDUSTRY "CZAR"

Washington, Aug. 5. — Robert P. Lamont, whose resignation as secretary of commerce was announced earlier this week, will become "czar" of steel industry, it was announced today. Charles M. Schwab stated yesterday that Lamont will became president of the American Iron and Steel Institute when the directors meet August 18. Schwab, who is president at the present time, will be moved up into the newly created position of chairman of the board of directors.

MONTANA RAILROAD BOARD APPEALS MOTOR TRAFFIC CASE

Helena, Mont., Aug. 5.—The State Board of Railroad Commissioners has filed with the Supreme Court a petition for rehearing in the case of Barney versus The Commission, in which the court held that the plaintiff, a contract motor carrier, cannot be required to obtain a certificate of convenience and necessity.

New Passenger Car Registrations by States and Months, First Six Months of 1932.

New Passenger Car Registrations by States and Months, First Six Months of 1931.

States	January	February	March	First Quarter	April	May	June	First Half	January	February	March	First Quarter	April	May	June	First Half
Alabama	732	695	471	1898	900	790	822	4410	877	821	1515	3213	2087	1929	1415	8644
Arizona	206	198	187	591	155	334	301	1381	423	395	572	1390	340	989	509	3228
Arkansas	1594	578	324	2496	409	428	486	3819	1249	707	799	2755	964	871	616	5206
California	6830	5278	6541	18649	6188	5928	8652	39417	12379	9797	15689	37865	15655	14272	13772	81564
Colorado	2095	876	620	3591	1105	1105	1316	7117	2343	1367	1188	4898	2688	2159	2204	11949
Connecticut	1041	1049	1645	3735	2326	2214	2366	10641	1337	1669	3300	6306	4834	4285	3594	19019
Delaware	255	212	301	768	341	397	504	2010	291	340	564	1195	690	706	565	3156
Florida	1713	1367	1096	4176	847	944	1647	7614	3282	1904	2322	7508	2575	2456	3162	15701
Georgia	*	*	*	*	*	*	*	*	2455	2863	2483	7801	2904	2541	2195	15441
Idaho	214	131	216	561	242	310	283	1396	549	388	582	1519	649	802	696	3666
Illinois	5164	5062	5376	15602	7982	7701	7606	38891	9356	9772	11583	30711	17004	15329	11241	74285
Indiana	3180	2359	2638	8177	3696	3046	3509	18428	3772	3375	5883	13030	9391	7803	4251	34475
Iowa	1111	1049	1387	3547	2525	2579	3092	11743	2679	3530	4856	11065	6522	5950	5056	28593
Kansas	1080	1090	872	3042	1042	2343	1221	7648	3259	2060	2601	7920	3777	2789	1928	16414
Kentucky	1041	1161	951	3153	1410	1670	1850	8083	2065	1926	2354	6335	3402	3167	2989	15893
Louisiana	950	801	643	2394	879	856	1303	5432	1261	956	1643	3860	1917	1963	1915	9655
Maine	430	267	812	1509	1247	1451	1336	5543	303	542	1451	2296	2957	2933	2085	10271
Maryland	1292	1375	1499	4166	1860	2116	2851	10993	1609	2074	3259	6942	3738	3624	3412	17716
Massachusetts	3135	2820	4336	10291	7768	7432	7508	32999	3638	4077	9616	17331	15131	13075	10098	55635
Michigan	4137	4230	4318	12685	5116	8875	11358	38034	5993	7817	10758	24568	14166	13921	10653	63308
Minnesota	1270	1799	2459	5528	3231	3761	3676	16196	2361	1678	8186	12225	7816	6882	3998	30921
Mississippi	437	451	312	1200	426	608	777	3011	475	485	944	1904	1310	1370	1087	5671
Missouri	1561	6222	6683	14466	4024	3582	4241	26313	1983	9848	8973	20804	6886	5724	6242	39656
Montana	108	164	697	969	702	487	349	2507	767	745	1100	2615	1108	1037	700	5460
Nebraska	1149	954	920	3023	1442	1339	1417	7221	3183	2503	1961	7647	3610	3084	2541	16882
Nevada	89	104	137	330	172	93	140	735	190	132	248	570	235	246	241	1292
New Hampshire	261	256	490	1007	821	978	874	3680	111	438	1121	1670	1844	1599	1298	6411
New Jersey	4450	3892	3860	12202	5008	5722	7737	30669	8059	5194	8413	21666	10729	10554	9626	52575
New Mexico	249	144	88	481	229	193	209	1112	563	269	210	1042	558	431	232	2263
New York	10760	9994	12243	32,997	19120	20424	20084	92625	10515	13034	24836	48385	34939	31714	26318	141356
North Carolina	1231	786	774	2791	1427	1459	1429	7106	1616	1602	2356	5574	3249	3403	2336	14562
North Dakota	267	179	261	707	524	611	707	2549	547	613	956	2116	1400	1137	889	5542
Ohio	4407	4873	5088	14368	7307	8137	9329	39141	6723	8339	10542	25604	17736	15161	12003	70504
Oklahoma	1439	1292	957	3688	1639	1921	1979	9227	3029	1877	2522	7428	2909	2703	1934	14974
Oregon	600	512	512	1624	740	661	1010	4035	1354	1133	1382	3869	1851	1837	1774	9331
Pennsylvania	6325	7239	8518	22082	9962	11419	14537	58000	6407	8839	14437	29683	19947	20273	17938	87841
Rhode Island	319	602	770	1691	1097	1026	1103	4917	312	615	1531	2458	1988	1887	1719	8052
South Carolina	644	384	373	1401	667	624	766	3448	1012	959	1300	3271	1746	1731	1512	8260
South Dakota	290	369	385	1044	410	536	417	2407	1133	1074	952	3159	1190	1151	974	6474
Tennessee	1110	781	551	2442	1105	1199	1114	5860	1592	1258	1915	4765	3248	2932	2118	13063
Texas	4119	2834	2977	9930	3737	4318	5483	23468	6099	5293	7188	18580	8549	8622	7686	43437
Utah	264	210	350	824	281	321	400	1826	306	499	893	1698	887	675	720	3980
Vermont	167	169	282	618	538	743	700	2599	140	206	475	821	1213	1197	828	4059
Virginia	2462	2188	1426	6076	1758	1976	2403	12213	1634	3686	2924	8244	3878	4811	4399	21332
Washington	1163	654	1192	3009	1281	1198	1290	6778	2302	1390	2666	6358	2613	2279	1260	12510
West Virginia	728	640	668	2036	1183	1128	1586	5933	924	1021	1464	3409	2674	2542	2120	10745
Wisconsin	2236	2375	2568	7179	3064	3103	3602	16948	2892	3334	5439	11665	6727	7711	3906	30009
Wyoming	251	338	383	972	206	181	229	1588	240	348	411	999	493	552	473	2517
District of Col.	1136	836	1123	3095	1407	1556	1924	7982	1207	1338	2478	5023	3008	2918	2683	13632
Totals	85692	81839	91280	258811	119536	129823	147523	655693	126786	134133	200841	461760	265732	247727	201911	1177130

*Returns from Georgia not available.